

RESUME



1. **Name** : Dr. Rajan Hari Chile.
2. **Designation** : Professor,
Department of Instrumentation Engineering,
SGGS Institute of Engineering and Technology,
Vishnupuri, Nanded -431606 (MS)
Presently,
Head, Department of Electrical Engineering,
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3. **Address for Correspondence** : Head, Department of Electrical Engineering,
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4. **Date of Birth** : 13-09-1964
5. **Nationality** : Indian
6. **Category** : NT1

7. Educational Qualifications:

| Sr. No. | Name of Examination | Name of Institute | Board/ University | Year of passing | Marks and class obtained |
|---------|---------------------------|--|--|----------------------------|--|
| 01 | S.S.C. | Shri Bhagavati High school, Munage, Tal: Deogad, Dist: Sindhudurga | S. S. C. Board, Pune | April , 1979 | 82.13%, First class |
| 02 | Diploma (Mechanical Engg) | Govt. Polytechnic, Kolhapur | D.T.E., Mumbai | June 1982 | 71.55 % First Class |
| 03 | Diploma (Electrical Engg) | Govt. Polytechnic, Kolhapur | D.T.E., Mumbai | August 1984 | 76.78% First Class |
| 04 | B.E. (Instrumentation) | S.G.G.S. College of Engineering and Technology, Nanded | Marathwada University, Aurangabad | Nov/ Dec, 1987 | 70.54% First Class with distinction & order of merit 5 th in University. |
| 05 | M.E (Instrumentation) | S.G.G.S. College of Engineering and Technology, Nanded | Marathwada University, Aurangabad | Nov/Dec, 1992 | 66.00% First Class |
| 06 | Ph.D. | Department of Electrical Engineering, UOR, Roorkee | University of Roorkee, Roorkee (At Present: I.I.T., Roorkee) | 27 th Nov. 1999 | |

M.E. (Dissertation) Title: Implementation of Digital Cascade Controller using 8086 Microprocessor.

Ph.D. Thesis Title: Developments in Model –Reference Adaptive Digital Control.

8. Details of Employment:

| Sr. No. | Name of Employer | Department | Period | | Designation |
|---------|---|-----------------------------|-----------------------------|-----------------------------|---|
| | | | From | To | |
| 01 | Principal and Secretary, S.G.G.S. College of Engineering and Technology, Nanded | Instrumentation Engineering | 4 th August 1987 | 4 th August 1993 | Lecturer in Instrumentation Engineering |
| 02 | Principal and Secretary, S.G.G.S. College of Engineering and Technology, Nanded | Instrumentation Engineering | 4 th August 1993 | 4 th August 1998 | Lecturer (Senior Scale) in Instrumentation Engineering |
| 03 | Principal and Secretary, S.G.G.S. College of Engineering and Technology, Nanded | Instrumentation Engineering | 4 th August 1998 | 27 th Nov. 1999 | Lecturer (Selection Grade) in Instrumentation Engineering |
| 04 | Principal and Secretary, S.G.G.S. College of Engineering and Technology, Nanded | Instrumentation Engineering | 27 th Nov. 1999 | 01/01/2006 | Assistant Professor in Instrumentation Engineering |
| 05 | Director, S.G.G.S. Institute of Engineering and Technology, Nanded | Instrumentation Engineering | 01/01/2006 | 26/11/2007 | Associate Professor in Instrumentation Engineering |
| 06 | Director, S.G.G.S. Institute of Engineering and Technology, Nanded | Instrumentation Engineering | 27/11/2007 | Till this date | Professor Instrumentation Engineering |

09. **Teaching Experience:** UG: 30 Years; PG: 25 years

10. Subject Taught:

U.G . Classes:

- i. Transducer Technology
- ii. Process Control
- iii. Instrumentation Component Design
- iv. Instrumentation System design
- v. Power Plant Instrumentation
- vi. Linear Integrated Circuits
- vii. Feedback Control Systems
- viii. Unit Operation
- ix. Elements of Electrical Engineering
- x. Electrical technology/Electrical machines
- xi. Electrical and Electronic Measurement and Instrumentation
- xii. Instrumentation Techniques
- xiii. Digital Control Systems
- xiv. Digital Signal Processing

P.G. Classes:

- i. Industrial Instrumentation
- ii. Advanced Process Control
- iii. Adaptive Control Systems
- iv. Advanced Instrumentation System Design
- v. Modern Control Theory
- vi. Computer Process Control

11. **U.G. Projects Guided:** 35 Projects

12. **Dissertations/Ph.D. Thesis Guided:**

M.E.(Instrumentation) Dissertations

List of dissertations completed:

- [1] "Implementation of Model–Reference Adaptive Control System for Temperature Control of Electric Oven", in May 2000; Student: Mr. N. J. Patil
- [2] "On some techniques of Parameter Identification and Controller Design for Self-Tuning Regulator", in August 2000, Student: Mr. M.J. Lengare
- [3] "On some techniques of Designing Fuzzy Controller", in Feb. 2001, Student: Mr. N. S. Kubal; Co-supervisor: Prof. C. B. Deshpande
- [4] "On some techniques of Auto-Tuning of PID Controller", in Oct. 2001; Student: Mr. M. Krishna
- [5] "On some technique of Model–Reference Adaptive Control Systems", Feb. 2002, Student: Mr. M.J. Kale
- [6] "PLC Based Sequential Batch Process Control", in May 2002; Student: Mr. Y.S. Angal; Co-supervisor: Mr. R.G. Jamkar
- [7] "On some Techniques of Neural Networks for control applications", in July 2003, Student: Mr. P.B. Kadam; Co-supervisor: Dr. L.M. Waghmare
- [8] "Modeling of Industrial Boiler", 2004, **In collaboration with RCF, Mumbai**, Student: Mr. Rohit G. Shende
- [9] "An Adaptive Neuro-Fuzzy system for Automatic Image Segmentation and Edge Detection", 2004, Student: Mr. B.R. Vikram.
- [10] "Fuzzy Model Reference Learning Control for Nonlinear Process Control Application", 2005, Student: Mr. Kulkarni Santosh
- [11] "Application of Sliding Mode Fuzzy Logic Controller to Inverted Pendulum System Control," Sept. 2005, Student: Mr. Nagrale R. M.
- [12] "Simulation of DC Motor Control Using Sliding Mode Control Technique", July, 2009, Student: Mr. Subhash Shrikant Sankeshwari
- [13] "Automation of Tar Separation Plant, Burnpur", July 2011, **In Collaboration with Tata Honeywell Automation India Ltd., Pune**, Student: Ms. Mayura Sukalkar.
- [14] "Fuzzy Based Control for process Control Applications", July 2011, Student : Prashant Gaikwad
- [15] "Tuning of PID Controller Using MOMI Method", July 2012, Student: S. R. Shiledar
- [16] "Fuzzy Logic Based Control of Three Tank System" July 2012, Student: Sachin S. Giri.

- [17] "Instrumentation In Environmental Research Projects", July 2013, **In collaboration with Genesis Technologies**, Thane , Student: Prashant P. Nikam
- [18] "PID controller tuning using Genetic Algorithm", July 2013, Student: Abhay Pakhare
- [19] "Oily Vitamin Premix Handling System Automation using Distributed Control System Delta V", July 2014, **In Collaboration with Zenith Technology, Pune**, Student: Rohan Laxman Waghmare
- [20] "Some studies on Model Based Control and Real time experimentation in Process Control Applications", July 2014, Student: Sushant N. Pawar
- [21] "Reconstituted Milk Handling Process Automation using Delta V distributed Control System." , July 2014, **In Collaboration with Zenith Technology, Pune**, Student: Sumeet Mali
- [22] Isolated word recognition using spectrogram analysis and its application in voice controlled wheelchair. July 2015 Student Sachin S. Patil.
- [23] Development of speech recognition algorithm & its application for voice controlled wheelchair. July 2015 Student Sachin B. Babhale
- [24] Design and Development of robotics welding cell. Student Nilesh S. Pachpande, July 2016.
- [25] Automatic wheelchair control using speech recognition. Student Pratapsingh Ghule, July 2016.
- [26] Design of SCADA and PLC based control system for leakage testing of Components. July 2017 Student July S. Vispute
- [27] Design and tuning of PID Controller for stable Processes with inverse Response. July 2017 Student Miss Asmita Kulkarni.

Ph.D. Thesis Guided:

| Sr. No | Name of Ph.D. student | Title of Ph. D. Thesis | Date of Registration | Status | Date of completion |
|--------|-----------------------|--|----------------------|----------------|--------------------|
| 01 | Gaikwad Ashok D. | Development of Fibre Optic Chemical Instrument | June 2003 | Degree awarded | 11/05/2013 |
| 02 | Lengare M.J. | Design of PID controllers for single and multivariable systems: A Genetic Approach | 2003 | Degree awarded | 03/04/2012 |
| 03 | Patil A.G. | Study and Analysis of RR Time Series Signal in Spinal Cord Injury Patients | 2004 | Degree awarded | 02/07/2009 |
| 04 | Kulkarni S.B. | An Adaptive Approach in Digital Distance Protection | June 2003 | Degree awarded | 25/08/2012 |
| 05 | Angal Yogesh S. | Speech Recognition Techniques: Study of some aspects and Development of algorithms. | June 2003 | Degree awarded | 09/03/2013 |
| 06 | Patil Nitin J. | Adaptive Fuzzy Controllers | June 2003 | Degree awarded | 04/01/2013 |
| 07 | Mohite-Patil T.N. | Proto-Modeling of Under Water Acoustic Signal Absorption in Sea Water and Its Recovery. | June 2008 | Degree awarded | Aug. 2013 |
| 08 | Admuthe S.S. | Fuzzy Linguistic Variables in Process Control Application | 2002 | Degree awarded | 7/11/2013 |
| 09 | Patil Y.M. | An Efficient Mapping Scheme with Robust Cooperative Coding for CDMA Networks. | August 2007 | Degree Awarded | 21/06/2014 |
| 10 | Chavan M.S. | Neuro fuzzy system based on radial basis Function Neural Network for adaptive equalization of wireless channels. | Jan. 2009 | Degree Awarded | 16.06.2015 |
| 11 | Kumbhar Mahesh | Multisensor Data Fusion Using Fuzzy Kalman Approach | Jan. 2009 | Degree Awarded | 08/09/2016 |

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|----|-------------------------|---|-----------|---------------------|------------|
| 12 | Desai K. R | Model for computation in error correction factors in GPS signal | Jan. 2009 | Degree Awarded | 24/12/2016 |
| 13 | Jadhav Sharad P. | Optimization of Algorithms for Model Predictive Control | 2011 | Degree Awarded | 03/11/2017 |
| 14 | Panchade V.M. | Sliding Mode Control Strategies for Induction Motors | 2012 | Under Completion | |
| 15 | Patil A.B. | Some Techniques in Developments of Robust Optimal Control using Fuzzy Logic Approach | 2012 | Under Completion | |
| 16 | Sankeshwari S.S. | Some Studies on Sliding Mode Control Strategies on Industrial DC Drives. | 2012 | Under Completion | |
| 17 | Dhend Mangala Hemant | Some Studies and Investigations of Distribution System Monitoring and Fault Location in Smart Grid | Nov. 2014 | Pre-submission over | |
| 18 | Tamboli Dipti | Some Studies on Multiple Model Based Control Strategies for Complex System. | 2014 | Under Completion | |
| 19 | Sonar Arun | Fuzzy Logic for Process Control (Non-linear Process) | | Under Completion | |
| 20 | Pawar Sushant Nandkumar | Design and Development of Some Strategies on an Observer Based Control of Nonlinear Systems with Unknown Disturbances | Dec. 2014 | Under Completion | |

13. Details of Publications:

Papers in International Journal:

- [1] "RR variability in spinal cord injured Patients", A.G. Patil, R.H.Chile, and S.T. Hamde, Internet Journal of Bioengineering, IISN 1937-8246, Volume 3, Number 1(2008), pp.1-7.
- [2] "Wireless System for Measurements of RR variability During Physical Activity", A.G.patil, R.H.Chile, and S.T. Hamde, Internet Journal of Bioengineering, ISSN 1937-8246, Volume 3, Number 2 (2009), pp.1-11.
- [3] "Auto Tuning of PID controller for MIMO Processes ", M.J. Lengare, R.H.Chile, L.M. Waghmare, Bhavesh Parmar, International Journal of Electrical and Computer Engineering, 4:3, 2009.
- [4] "Modeling of Acoustic Wave Absorption in Ocean", T.B. Mohite-Patil, A.K. Saran, S.R. Sawant, R.H.Chile, T.T. Mohite –Patil, International Journal of Computer Applications , Volume 9- No. 12, November 2010.
- [5] "Simulation Study of Acoustic Wave Propagation in Ocean" ,T.B. Mohite-Patil, A.K. Saran, S.R. Sawant, R.H.Chile, T.T. Mohite –Patil, International Journal of Computer Applications , Volume 12- No. 8, December- 2010.
- [6] "Mathematical and Simulation Model of an SPWM Inverter", T.B. Mohite Patil, S.R. Sawant, R.H. Chile and T.T. Mohite Patil, International Journal of Electronic and Electrical Engineering, ISSN 0974-2174, Volume 4, Number 1(2011), pp. 23-32.
- [7] "An efficient Mapping Scheme with robust co-operative coding for CDMA networks," Patil Y.M., Chile R.H., International Jr. of Engineering research and Industrial Applications(IJERIA), ISSN 0974-1518, Vol. 2, No. III (2009), pp. 45-56
- [8] "Implementation of Adaptive Fuzzy Controllers for Speed Control of PMSM Drive", Patil N. J., Chile R. H. and Waghmare L. M., International Journal of Computer Applications (IJCA), vol. 1, No.11 , pp.94-101 , 2010. * Publisher : Foundation of Computer Science, 244 5th Avenue, # 1526, New York, NY 10001, USA (Impact Factor 0.835)
- [9] " Adaptive Fuzzy Controller for Industrial Temperature Process", Patil N.J., Chile R. H. and Waghmare L. M., *Journal of Research and Computing Science*.
- [10] "Implementation of Model Reference Adaptive Fuzzy Controller", Patil N. J., Chile R. H. and Waghmare L. M., *IETECH International Journal of Electrical Engineering & Technology*, vol. 4, No.2 , pp.41-45, 2008.
- [11] "Design of decentralized controllers for MIMO processes", M.J. Lengare, R.H.Chile, L.M. Waghmare, Elsevier's Journal of Computers and Electrical Engineering , Dec. 2011.
- [12] "Statistical Analysis of RR Series Variability in Spinal Cord Injured Persons," Patil A.G., Chile R.H., Hamde S.T., International Journal of Medical Engineering & Technology, 2012, April, Vol. 36, No. 3, PP. 180-184.
- [13] "Assessment of Functional Efficiency of Autonomic Nervous System in SCI Subjects Using RR Variability" A. G. Patil, R. H. Chile, and S. T. Hamde; International Journal of Bioscience, Biochemistry and Bioinformatics, Vol. 2, No.4, July 2012
- [14] "Performance Evaluation of Fault Location Algorithm for Protection of Series Compensated Transmission Line," Santosh B. Kulkarni and Rajan H. Chile, International Journal of Electrical Engineering and Technology, Vol. 2, No. 2, July 2011, pp. 32-41.
- [15] "MATLAB/SIMULINK Simulation Tool for Power Systems," International Journal of Power System Operation and Energy Management, Vol. 1 Santosh B. Kulkarni and Rajan H. Chile, Issue-2, 2011, pp. 33-38.

- [16] "A Novel Fast Adaptive Digital Distance Protection of Transmission Line in Presence of SVC," Santosh B. Kulkarni and Rajan H. Chile, ELEKTRIKA, Journal of Electrical Engg., Malaysia, 2012, Vol. 14, No. 1, pp. 14-20.
- [17] "An Intensity Modulated Optical Fiber Sensor with Concave Mirror for measurement of displacement ", Gaikwad A. D., Chile R.H. and et. al., Journal of Optics, SPRINGER, Vol. 42, No.4, Oct.- Nov. 2013, 300-306
- [18] "A survey on sliding mode control strategies for induction motors", V.M. panchade, R.H. Chile, B.M. Patre, Elsevier's Annual Reviews in Control, 37, 2013, 289-307
- [19] " A unified Approach to Transmission Network Cost Allocation", S.S. Sankeshwari, R.H.Chile ,International Journal of Engineering Research and Applications, Vol. 2, Issue 3, May-June 2012.
- [20] " Position Control of an Interior Permanent Magnet Synchronous Motor by using Adaptive Back Stepping Algorithm" , S.S. Sankeshwari, R.H.Chile, International Journal of Engineering Research and Applications, Vol. 2, Issue 3, May-June 2012.
- [21] " Various fuzzy modelling techniques and fuzzy controller design for non-linear system", A.B.Patil, R.H. Chile, International Journal Of Advanced Technology In Engineering And Science (IJATES), Vol 2, Issue 1, pp. 648-656, 2014
- [22] " Stability Analysis of robust T-S Fuzzy system using LMI technique", A.B.Patil, R.H. Chile, International Journal Of Applied Engineering Research, Vol. 10, Issue 59, pp.400-404, 2015
- [23] " Robust fuzzy-PSO approach for controlling non-linear systems", A.B.Patil, R.H. Chile, International Journal Of Applied Engineering Research, Vol. 10, Issue 59, pp.400-404, pp. 395-399, 2015
- [24] " Development of Smart Meter for Distribution System Monitoring", Discovery, vol. 43 Issue-196,ISSN 2278-5469, EISSN 2278-5450, October 2015, 13-19
- [25] " Fault Diagnosis of Smart Grid Distribution System by Using Smart Sensors and Symlet Wavelet Function",Springer Journal of Electronic Testing: Theory and Applications (JETTA), June 2017,Print ISSN:0923-8174 Vol. 33(3), April 2016, pp. 329-338.
- [26] " Characterization of fault using voltage sag profile", International Journal of Engineering, Technology, Science and Research Vol. 4, Issue 5, ISSN 2394-3386, May, pp.17-27
- [27] "A Simple Method to Design Robust Fractional-order Lead Compensator", Springer, International Journal of Control, Automation and Systems 15(3) (2017) 1236-1248
- [28] " Modified Reduced Order Observer based Linear Active Disturbance Rejection Control for TITO Systems", Elsevier ISA Transactions,To Be Printed
- [29] " Robust Fractional-order Controller using Bode's Ideal Transfer Function for power plant gas turbine", Journal of Computer Applications, Vol. 88, No. 16, Feb. 2014
- [30]

Papers in National Journal:

- [1] "Digital adaptive control techniques in process industry, part-I: Structure and Funcions," Verma H.K., Saxena S.C., Chile R.H., Published in Electrical India, Vol.36, No. 13, 1996, pp. 7-13.
- [2] "Digital adaptive control techniques in process industry, part-II: Control Techniques," Verma H.K., Saxena S.C., Chile R.H., Published in Electrical India, Vol.36, No. 14, 1996, pp.14-19"
- [3] "Digital adaptive control techniques in process industry, part-III: Comparative Study and Conclusions," Verma H.K., Saxena S.C., Chile R.H., Published in Electrical India, Vol.36, No. 15, 1996, pp. 19-25."
- [4] "Applications of combined direct and indirect adaptive control algorithm for temperature control of counter-flow heat exchanger", Saxena S.C., Verma H.K. ,Chile R.H., Published in IETE research Journal , New Delhi, Vol. 46, No.4, July-August 2000, pp.265-275

- [5] "Modified approach to Model-Reference Adaptive Controller", Saxena S.C., Verma H.K., Chile R.H., Published in Journal of Institution of Engineers, Vol. 82, January 2001, pp. 43-51 (Electronics and Telecommunications Division)
- [6] "Microprocessor based temperature indicator and controller", R. G. Jamkar., , R.H. Chile, Published in Journal of Instrument Society of India , Vol. 34, No. 3, 2003, pp.180-186
- [7] "PLC based sequential controller", Y.S. Angal, R.G. Jamkar, R.H.Chile, IETE Technical Review Journal, Vol. 23, No. 3, May-June-2006, pp.163-171
- [8] "An adaptive Approach in Distance Protection-A Survey", S.B. Kulkarni, R.H.Chile, e-Publication on-line article, May 25, 2006
- [9] "Fisher Simmon Simulation Model for acoustic wave absorbtion",T.B. Mohite Patil, T.T. Mohite Patil, S.R. Sawant and R.H. Chile, Instrument Society of India, Vol. 41, No. 2, June 2011, pp. 130-133
- [10] "Genetic Approach to Design Decentralized PID Controllers for Multi-variable Processes", M.J. Lengare, R.H. Chile, L.M. Waghmare, Instrument Society of India, Vol. 41, No. 2, June 2011, pp. 93-97.
- [11] "Comparison of end point detection algorithms in isolated words for speech signal processing," Y.S. Angal, R.H. Chile, R.S. Holambe, Jr. of Instrument Society of India, Vol. 14, Issue no.4, Dec. 2010, pp.305-07
- [12] "Ainslice Mc colm simulation model for acoustic wave absorption", T.B. Mohite-Patil, T.T. Mohite-Patil, S.R.Sawant, R.H.Chile, Jr. of Instrument Society of India, Vol. 41, No.3, Sept. 11, pp.174-177
- [13] "Chen and Millero- UNESCO underwater sound speed simulation model and its correction", T.B. Mohite-Patil, T.T. Mohite-Patil, S.R.Sawant, R.H.Chile, Jr. of Instrument Society of India, Vol. 41, No.3, Sept.11, pp.168-171

Papers in International Conferences:

- [1] "Implementation of complex control scheme using microprocessor," Chile R.H., Hamde S.T. , Proceedings of 5th International Congress (NAFEN), New Delhi, 21st-22nd Nov. 1991, pp. 36-39
- [2] "Microprocessor based tool position control of workshop machine", Hamde S.T., Chile R.H., Proceedings of 5th International Congress (NAFEN), New Delhi, 21st-22nd Nov. 1991, pp. 40-43
- [3] "Algorithm for on-line estimation of parameters of digital PID controller," Chile R.H., Verma H.K., Saxena S.C., Proceedings of the international conference on ,"Mathematics and its applications in engineering and Industry,"at University of Roorkee, Roorkee, Narosa Publishing House, New Delhi, 1997,pp.214-221
- [4] "Combined direct and indirect adaptive control of first order system," Chile R.H., Verma H.K., Saxena S.C., Proceedings of International conference on computer applications in Electrical Engg., CERA-97", at University of Roorkee, India, 1997, pp. 513-519.
- [5] "Fuzzy precompensated PID Controller," Arun D. Sonar, R.H.Chile, R.G Jamkar, Proceedings of International Conference INCON 2004 at PIET, Pune
- [6] "Developments of Fibre Optic pH Meter based on Colorimetric Principle," Gaikwad A.D., Chile R.H., Shaligram A.D., Proceedings of International Conference INCON 2004 at PIET, Pune
- [7] "Implementation of Robust Sliding Mode Fuzzy Logic Controller for Nonlinear Systems", Nagrale R., Chile R.H., Proceedings of International Conference at Priyadarshini College of Engg., Nagpur, p. 77, July 2006.
- [8] "Design of Fuzzy Controller for batch reactor", Nitin Patil, R.H.Chile, RACE 2007, at Govt. College of Engg., Bikaner, pp. 76-80, March 24-25,2007

- [9] "Industrial Temperature Regulation using an Adaptive Fuzzy Logic Controller", Nitin Patil, R.H.Chile, L.M. Waghmare, Proceedings of Int. Conf. on Informatics in Control, Automation and Robotics, ICICNO 2007, Angers, France, May 9-12, 2007
- [10] "Comparative study of SMC and SMFLC Robustness Property" Ravindrakumar Manik Nagarale, Pramod Arvind Kulkarni, Rajan Hari Chile, Balasaheb Maharudraappa Patre at IEEE ICMA 2007 at Harbin, China in August , 2007
- [11] "Optimization of PID controller using Genetic Algorithm",R. H. Chile, L.M. Waghmare, M.J. Lengare, Bhavesh Parmar, in Proceedings of the International Conference on Systemics, Cybernetics and Informatics, Hyderabad, 2-5 Jan. 2008, pp. 351-354
- [12] "Designing of PID controller using Genetic Algorithm", M.J. Lengare, Bhavesh Parmar, R. H. Chile, L.M. Waghmare, in Proceedings of the International Conference on Sensors, Signal Processing, Communication, Control and Instrumentation, Pune, 3-5 Jan. 2008, pp. 135-139
- [13] "A genetically Tuned Optimal PID Controller," R. H. Chile, L.M. Waghmare, M.J. Lengare, in Proceedings of First International Conference on Emerging Technologies and applications in Engg. Technology and Sciences, Rajkot, Gujrat, 13-14, Jan. 2008,Vol. II, PP. 1521-1524.
- [14] "Improving PID Controller by Genetic Algorithm," R. H. Chile, L.M. Waghmare, M.J. Lengare, in Proceedings of International Conference on Emerging Techniques in Computing, Electronics, Embedded System and VLSI Design, Ahmadnagar, 20-21 March 2008, pp. 203
- [15] "Design of Decentralized Controllers for MIMO Processes", R. H. Chile, L.M. Waghmare, M.J. Lengare, in Proceedings of First International Conference on Emerging Technologies, Benglore,
- [16] "Implementation of adaptive fuzzy controllers for speed control of PMSM drive", Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Futuristic Computer Applications, Bangalore,India,2010
- [17] "Input scaling factors based fuzzy adaptive controller", Patil N. J., Chile R. H. and Waghmare L. M.,proc. of International conference on_Advances in Energy Conversion Technologies, Manipal, India, 17-20 January 2010.
- [18] "Hybrid model reference adaptive fuzzy controller" Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Emerging Trends in Engineering & Technology, Nagpur, India, 16-18 December 2009.
- [19] "A novel approach to model reference adaptive fuzzy controller using output scaling factor", Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Fuzzy Systems, Ankara, Turkey, 1-2 October 2009
- [20] "Design of model reference adaptive fuzzy controller for green house process" Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Systemics, Cybernetics and Informatics, Hyderabad, India, 7-10 January 2009.
- [21] "Design of Fuzzy Logic Controller based on Genetic Algorithms" Patil N. J., Chile R. H. and Waghmare L. M., proc. of International Conference on Resource Utilisation and Intelligent Systems, Erode, India, 2008.
- [22] "An adaptive fuzzy logic control system for industrial temperature regulation" Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Informatics in Control, Automation and Robotics, Angers, France, 9-12 May 2007.
- [23] "Design of model reference adaptive fuzzy controller" Patil N. J., Chile R. H. and Waghmare L. M., proc. of IET-UK International conference on Information and Communication Technology in Electrical Sciences, Chennai, India, 20-22 December 2007.
- [24] "Adaptive fuzzy controller for time delay process" Patil N. J., Chile R. H. and Waghmare L. M., proc. of International conference on Industrial Informatics, Mexico, 13-15 November 2007

- [25] " A Graphical representation of Computation of Error factors in GPS Signals", iCOST 2011, Jan. 13-15, J.J.T., Rajasthan, 2011
- [26] " MATLAB/SIMULINK Simulation Tool for Power Systems", ICCCT 2011, Delhi, Aug. 6-7, 2011
- [27] "Model based analysis of sympathetic and parasympathetic nervous systems in spinal cord injured subjects using RR variability", A.G.Patil , R.H.Chile and S.T.Hamde , ICBET, 2012
- [28] " Distance Protected Double Circuit Transmission Line in Presence of Shunt FACTS Devices" ICACCT 2014, at Panipat.
- [29] " Effect of Shunt Device on Distance Protection", at ICATETR-2014 at Kota on Dec. 22-24, 2014
- [30] " Fuzzy-PSO approach for controlling non-linear system", A. B. Patil, R.H. Chile, IEEE International Conference On Computation Of Power, Energy, Information And Communication, pp. 1-6, Chennai

Papers in National Conferences:

- [1] "Vibration measurement, analysis and monitoring by 8085 microprocessors", Hamde S.T., Chile R.H., Proceedings of All India Conference on Applied Instrumentation at University of Roorkee, Roorkee, Feb. 1992, pp.27-30
- [2] "8085 microprocessor based frequency response analyzer," Chile R.H., Hamde S.T., Proceedings of All India Conference on Applied Instrumentation at University of Roorkee, Roorkee, Feb. 1992, pp.31-34.
- [3] "Microprocessor based D.C. motor speed control," Hamde S.T., Chile R.H., Proceedings of All India Conference on Applied Instrumentation at University of Roorkee, Roorkee, Feb. 1992, pp.285-288.
- [4] "Microprocessor based temperature indicator and controller," Jamkar R.G., Chile R.H., National Symposium on Instrumentation (NSI-27) , Nov. 2002 at Bharthair University, Coimbatore
- [5] "PC based calibration set-up for temperature transducer-RTD," Chile R.H., Jamkar R.G., National Symposium on Instrumentation (NSI-27) , Nov. 2002 at Bharthair University, Coimbatore
- [6] "Robust sliding mode controller for nonlinear systems", Nagrale R., Chile R.H., TsyGeca 06 at GCOE, Aurangabad, pp. 440-444, Jan. 2006
- [7] "Voice activated device control (speech recognition) ," Angal Y., Chile R.H. Holambe R.S., TsyGeca 06 at GCOE, Aurangabad, Jan. 2006
- [8] "Implementation of robust sliding mode controller for nonlinear system", Nagrale R., Chile R.H., ECI 2006 at St. Josef's College of Engg. Chennai, pp. 51-56, Feb 2006
- [9] "Fuzzy Logic Based PID Controller Tuning Method", Nitin Patil, R.H.Chile, CISCON 2006, Manipal Institute of Technology, Manipal, Nov. 21-22, 2006
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- [11] "Hybrid Fuzzy Logic Controller for Temperature Control System", Nitin Patil, R.H.Chile, RTIT 2006, JTMCOE, Faizpur, pp. 1-6, Oct. 21-22, 2006
- [12] "Design of Simple Fuzzy PID Controller", Nitin Patil, R.H.Chile, BITCON 2007, Bhilai Institute of Technology, Durg, CG, pp. 65-69, March 16-17, 2007
- [13] "Implementing Fuzzy Adaptive Controller for Process Control", Nitin Patil, R.H.Chile, NCDIM 2007, T.S. College of Engg., Mumbai, III-6 to III-12, April 27-28, 2007
- [14] "An efficient mapping scheme with robust co-operative coding for CDMA", Patil Y.M., Chile R.H., at Conf. at Pune, on 7-8, Sept. 2007
- [15] "PID controller tuning using Genetic Algorithm (GA)",Lengare M.J., Chile R.H., Waghmare L.M., ETCS-2007, October at Meerut, pp. 258-264

- [16] “More Efficient GA for Tuning optimal PID Controller” Lengare M.J., Chile R.H., Waghmare L.M., NCTIAC 2007, at Mumbai on Dec. 28-29, 2007, pp. A-1

Other Papers:

- [1] “Problems and difficulties of entrepreneurs,” Chile R.H., Jamkar R.G., Hamde S.T., Proceedings of Seminar on “Role and responsibility of technical institutes in innovation and entrepreneurship,” Jan. 1990, pp.79-80
- [2] “The need of industry and engineering institute interaction in economic development,” Chile R.H., Hamde S.T., 21st annual convention of ISTE , Dec. 1991
- [3] “Optical fibre and technical education”, Kahalekar S.G., Chile R.H., Proceedings of Seminar on “Revamping of Technical education”, Jan. 1991, pp. 164-168
- [4] “Biomedical Engineering Education in India,” Kahalekar S.G., Chile R.H., Proceedings of Seminar on “Revamping of Technical education”, Jan. 1991, pp. 168-172
- [5] “Biomedical Engineering Education,” Kahalekar S.G., Hamde S.T., Chile R.H., Jamkar R.G., Proceedings of IEEE-EMBS and 14th BMESI Conference held at New Delhi, Feb. 1995, pp. 2.95-2.96
- [6] “Marathwadyat Tantravidyapithachi Garaj, i.e. Necessity of Technical University in Marathwada Region,” Chile R.H., Satyaprabha, News-paper, Nanded, August 9,1999, p.9

Conference Attended:

- [1] State level conference on “Role and responsibility of Technical Institutes in Innovation and Entrepreneurship”, Jan. 1990 at SGGSCET, Nanded
- [2] 5th International Congress and Exhibition hosted by National Foundation of Indian Engineers (NAFEN), Nov. 1991, at New Delhi
- [3] International Conference on “Mathematics and its Applications in Engineering”, at University of Roorkee, Roorkee in Sept., 8-11,1997
- [4] International Conference on “Computer Applications in Electrical Engineering”, CERA-97 at University of Roorkee, Roorkee in Sept, 1997
- [5] International Conference on Instrumentation INCON 2004 at PIET, Pune
- [6] International Conference on Instrumentation, Control and Signal Processing, at COEP, 2015

14. Details of Short-Term Training Programs (STTP) attended:

| Sr. No. | Institution | Title of Course | Duration |
|---------|--|--|-----------------------------------|
| 01 | University of Roorkee, Roorkee | Recent trends in Biomedical Instrumentation | 19/6/88 to 2/7/88 Two Weeks |
| 02 | I.I.T., Kharagpur | Common Laboratory Equipments (Use and Fault diagnosis) | 10/12/99 to 22/12/99 Two weeks |
| 03 | SGGSCE & T Nanded | Induction Training for Teachers | 25/2/93 to 28/2/93 One week |
| 04 | SGGSCE & T, Nanded and Tata -Honeywell, Pune | Process Control and D.C.S. Overview | 26/4/93 to 30/4/93 One week |

| | | | |
|----|---|--|---|
| 05 | Tata- Honeywell, Pune | TDC 3000 and LCS 620 Implementation | 1/11/93 to 19/11/93 Three weeks |
| 06 | MNREC, Allahabad | Pump and Valve selection for optimum performance | 27/12/93 TO 8/1/94 Two Weeks |
| 07 | TKIE&T, Warananagar | Medical Instrumentation: Present Scenario | 20/6/94 to 2/7/94 Two weeks |
| 08 | SGGSCE & T, Nanded | Strategic Planning and Institutional Development | 05/09/96 to 07/09/96 Three days |
| 09 | ISTE, U.P. Section and University of Roorkee | Strategic Planning for Institutional Development | 05/09/96 to 07/09/96 Three days |
| 10 | QIP Centre , U.O.R., Roorkee | Creativity, Design Process and Teaching | 06/09/1997 |
| 11 | W.I.T. , Solapur | Internet Programming | 05/06/2000 to 16/06/2000 Two Weeks |
| 12 | SGGS C.E. and T., Nanded | Programming with C and C++ | 29/06/2000 to 19/07/2000 Three weeks |
| 13 | SGGS C.E. and T., Nanded | Computer Applications in System Engg. | 21/05/2001 to 02/06/2001 Two weeks |
| 14 | SGGS C.E. and T., Nanded | Neural N/W and Fuzzy Logic: Theory and Applications | 11/06/2001 to 23/06/2001 Two weeks |
| 15 | SGGS C.E. and T., Nanded | Water Management: Basic Principles and Interdisciplinary Approach | 25/06/2001 to 07/07/2001 Two weeks |
| 16 | MGMCOE, Nanded | Mobilization of Financial Resources in Technical Institutes | 07/01/2002 to 18/01/2002 Two weeks |
| 17 | WCE, Sangli | Student Evaluation System under Autonomous status (Under TEQIP) | 21/10/2005 |
| 18 | VNIT, Nagpur | Renewable Energy and Technologies (Under TEQIP) | 14/06/2006 to 16/06/2006 |
| 19 | WCE, Sangli | Advanced Control Systems | 22/07/2006 to 23/06/2006 |
| 20 | RIT, Sakhrale | Orcad PSpice software | 4/8 to 5/8/2006 |
| 21 | SGGSIET, Nanded | Tanner Tools Pro. (A complete VLSI design system) | Sept. 24-25,2006 |
| 22 | RIT, Sakhrale | Advanced DSP | 19/1 to 20/1/2007 |
| 23 | Indian Institute of Science (IISc), Bangalore | Advanced Control Systems | 3/2 to 4/2/2007 |
| 24 | KIT, Kolhapur | ME (E & TC) Syllabus Revision | Feb. 20, 2007 |
| 25 | PVPIT, Budghgaon | Instrumentation Engineering syllabus revision | Feb. 26, 2009 |
| 26 | IIT, Mumbai and SGGS I.E.T., Nanded | Scilab and Its Applications to Global Optimization and Fractional Differential Equations | April 23-25, 2010 |
| 27 | Irrigation Dept.,Nanded and SGGS IE & T, Nanded | Positive Approach and Communication Skills | 20 th August 2010 |
| 28 | SGGS IE &T., Nanded | Industrial Instrumentation | March, 16, 2011 |

| | | | |
|----|---------------------------|--|--|
| 29 | SGGS I E and T., Nanded | Recent Advances in Speech, Image and Video Processing. (AICTE Sponsored) | Dec. 12-23 2011 Two Weeks |
| 30 | SGGS I E and T, Nanded | Emerging Trends in Nanoscience and Nanotechnology | August, 06-10, Aug.2013 (One week) |
| 31 | NBA and SGGSI E T,Nanded | Training and Identification of Master Trainers and Evaluators on Outcome Based Accreditation Process and Parameters. | March 21-23, 2014. |
| 32 | SGGS I E and T., Nanded | MEMS Design and Simulation using TCAD Software | March 24-26, 2014 |
| 33 | V.J.T.I., Mumbai | Best practices in Curriculum Development of Electrical Engineering (NPIU/SPFU,M.S.) | August 25, 2014 |
| 34 | I.I.T., Delhi | Advances in Solar Energy Technologies (QIP , AICTE) | December 09-15, 2014 (one week) |
| 35 | SGGS I E and T., Nanded | Biomedical Signal Processing | 30/03/15 to 03/04/15 |
| 36 | SGGS I E and T., Nanded | Multi-rate Signal Processing and Wavelets (AICTE Sponsored) | 29/06/15 to 10/07/15 Two Week |

16. Area of Specialization:

- i. Process Control and Instrumentation
- ii. Instrumentation System Design
- iii. Control Engineering
- iv. Adaptive control and its applications to Process Industries

17. Additional Responsibilities:

- i. Prepared and worked for different DCA schemes as a In-Charge of Instrumentation and Process Control Engineering laboratory.
- ii. Worked as Assistant Chief Superintendent for D.B.A. Marathwada University , Aurangabad and S.R.T. Marathwada University, Nanded during Dec/Jan 1993/94, May/June 1999 and Dec/Jan 2000/02 Examinations.
- iii. Worked as officer-in-charge of Central Assesment Programme (CAP) of S.R.T. Marathwada University, Nanded during Dec/Jan 2000 and May/June 2001 Exam.
- iv. Worked in M.E. (Instrumentation) admission committee as well F.E. admission committee .
- v. Worked as Warden of Boy's Hostel during period July 1993 to June 1995 and at present working since July 2009.

- vi. Worked as Advisor of IESA (Instrumentation Engineering Students Association)
- vii. Worked as a Session Chair at different National & International Conferences.
- vii. Worked as In-Charge , Students Consumer Society, SGGS I.E. and T., Nanded
- viii. Worked as Subject Expert in different interview committees
- ix. Worked in the following different committees :
 - a. Training and placement committee
 - b. Syllabus revision committee at U.G. and P.G. level
 - c. Canteen committee
 - d. Academic Monitoring Committee
 - e. Secretary, Academic Excellence Cell in Autonomous Engineering Institute
 - f. Interview Committee
 - Grievances committee
- x. Worked as NSS coordinator for SGGS unit in year 2009-10
- xi. Working as Warden of hostels
- xii. Working as Head , Electrical Maintenance Cell, SGGS Campus since Oct. 2009
- xiii. Worked as Head, Department of Electrical Engineering since 26th June 2013 to August 2015.

18. Achievements:

- i. A reviewer of 6th International Conference on “Control, Automation, Robotics and Vision (ICARCV)” held on Dec. 5-8, 2000 in Singapore.
- ii. Selected as Faculty of Engineering at Multimedia University, Malaysia.
- iii. Member, Editorial Board , Proceedings of the International Conference on “Computer Applications in Electrical Engineering –recent Advances, CERA-97,” , University of Roorkee, Roorkee (presently IIT, Roorkee)
- iv. Recognised PG teacher of S.R.T. Marathwada University , Nanded
- v. Recognised research (Ph.D) guide at S.R.T. Marathwada University , Nanded and Recognised research (Ph.D) guide at Shivaji University, Kolhapur.
- vi. **Guest faculty** at Govt. College of Engineering, Chandrapur , WCE, Sangli, and Govt. College of Engineering, Amaravati.
- vii. **Resource faculty** at following different STTP/seminars/workshops
 - a. AICTE_ISTE approved STTP at Govt. College of Engg., Pune on Digital Control and Robotics, May 2002
 - b. ISTE course at SGGS CE and T, Nanded on “Water management : Basic principles and Interdisciplinary approach” June/July 2001
 - c. Workshop on NBA training for Faculty of PES College of Engg. , Aurangabad, Feb.

2003

- d. NSS camp of S.R.T. Marathwada University, Nanded ,March 2003
- e. ISTE-STTP Course on “Introduction to PLCs and DCS systems” at Govt. Polytechnic, Nanded, April 2003
- f. Workshop on “Development in Instrumentation Engg. Curriculum” at PVPIT, Budhgaon , Sangli sponsored by Shivaji University, Kolhapur Sept.,24-25, 200-4
- g. Workshop on “Participative Teaching Techniques” at SGGS C. E. and T., Nanded , August 2001
- h. Workshop on “Advanced Control Systems” at Walchand College of Engg., Sangli in July 2006
- I Workshop on “Energy conservation and Auditing” at Gramin Polytechnic, Nanded on Jan. 11, 2016

19. Courses/Conferences Organized:

- a. Organized Two Day Workshop on “Advanced Control System”, at Walchand College of Engineering, Sangli in 2007.
- b. Organized Two Day Workshop on “Applications of Digital Signal Processing in Industry” during March 20-21, 2010 at Dept. of Instrumentation Engg., SGGS I.E. and T., Nanded.
- c. Organizing Secretary, “National Conference on Instrumentation, Control and Signal Processing (ICSP-2013), Scheduled on July 8th-9th, 2013.
- d. Organized three day workshop on “ Design of Power Supplies and Industrial Drives,” with Collaboration of APLAB Ltd., Thane in Feb.24-26, 2014.
- e. Organized three day workshop on “ MEMS Design and Software “, March. 24-26, 2014.

20. Research Projects:

Research Promotion Scheme (RPS) sanctioned by AICTE, New Delhi with Grant-in-aid Rs. 5,00,000/- (Rupees Five Lakh only) in Dec. 2, 2011.

Title of the Project: Design and Development of Adaptive Controllers using Different Process Identification Techniques for on-line Process Control Applications. The project is completed successfully.

21. Membership:

- i. Life member of ISTE, New Delhi (No. LM 5525)
- ii. Life member of Instrumentation Society of India, Benglore(No. LM 1345)
- iii. Member, Board of Studies in Instrumentation Engg., Shivaji University, Kolhapur
- iv. Member, Board of Studies in Biomedical Engg., Sholapur University, Sholapur
- v. Member, Senate, SGGS I E and T, Nanded
- vi. Member, The Institution of Engineering and Technology(IET), London, UK. (No.1100329886)

20 Awards Received:

Recipient of a **Late Padmashree S.M. alias Annasaheb Beharay Ideal Teacher Commendable Prize** of Rs. 15,000/- and certificate from Walchand college of Engineering, Sangli and Maharashtra Technical Education Society, Pune for the year 2007-08.

21. Extension and Field Outreach Activities:

Holded the position as Programme Officer since 2009 to 2011, National Service Scheme Unit, SGGS College of Engineering and Technology, Nanded. Responsible for organizing national service programme, blood donation camps, tree plantation, awareness about AIDS and health programme etc. Participated in rally held for AIDS awareness by Govt. medical College, Nanded. The college has won trophy for blood donation camp organized in Institute premises. Also was instrumental in organizing YOGA camp at Institute level, department level and hostel level for students and staff.

Active involvement in the electrical maintenance of Institute Campus as Head of Electrical Maintenance Cell. This covers the design and specifications for different electric control panels, distribution panels, erection and commissioning of power transformer in power house, laying the routes for cabling, specification for change over for generator and vacuum circuit breaker etc.

As Head of Electrical Department, crucial role in establishment of new electrical department without any permanent faculty. This includes setting up of different laboratories comprising purchase, testing, erection and commissioning of lab equipments etc., faculty development, students training programme, mini and major projects of students, training of students, lab development, credit transfer scheme, student entrepreneurship, placement of students and other regular duties as a teacher and head of a department etc.

20. Hobbies:

Reading Marathi Literature; Swimming, Yoga

References:

Dr. L. M. Waghmare
Director,
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Nanded. Pin – 431606
Ph. No. 02462-229234.

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Professor,
Department of Electrical Engg.,
Indian Institute of Technology,
Roorkee. Pin - 247 667. (U.A.)